WHAT IS CLAIMED IS:

1. A working method of an alloy containing copper, the method comprising constraining a blank of an alloy containing copper and forming an outer peripheral portion so as to form an inner space therein by plastic working.

2. The working method of an alloy containing copper according to claim 1, wherein the alloy is one of copper and molybdenum or one of copper and tungsten.

3. The working method of an alloy containing copper according to claim 1, wherein the blank is formed into a cup-shape by plastic working.

4. The working method of an alloy containing copper according to claim 1, wherein the inner space is a stepped one.

5. A semiconductor apparatus comprising a cup-shaped diode base mounted on a radiating plate, a semiconductor chip fixed to an inner bottom surface of the diode base through a junction member, and lead wires connected to the semiconductor chip and to external devices, and wherein the diode base is made of a Cu-Mo alloy or a Cu-W alloy having a coefficient of thermal expansion of not less than 7 [10^{-6}/K] but not greater than 13 [10^{-6}/K] and a coefficient of thermal conductivity of not less than 150 [W/(m·K)] but not greater than 300 [W/(m·K)] and the alloy is subjected to plastic working by cold extrusion into a cup shape.

6. The semiconductor apparatus according to

claim 5, wherein the cold extrusion is rearward extrusion.

7. The semiconductor apparatus according to claim 5, wherein the cold extrusion is forward extrusion.

8. The semiconductor apparatus according to claim 5, wherein the semiconductor chip is joined to the diode base through solder.

9. The semiconductor apparatus according to claim 5, wherein the diode base is formed from a Cu-Mo sintered rolled material.

10. The semiconductor apparatus according to claim 9, wherein the Cu-Mo sintered rolled material contains about 35 % of Cu by weight and about 65 % of Mo by weight.

11. The semiconductor apparatus according to claim 5, wherein the semiconductor apparatus constitutes a full-wave rectifier in an automotive alternating current generator.

12. A working method of a metal material, the method comprising constraining a circumference of a blank made of a Cu-Mo sintered rolled material and one of surfaces to be worked with the use of a die, and applying working pressures to the other of the surfaces to be worked with the use of a punch to form a cup-shaped body, and wherein the surfaces to be worked, to which the working pressures are applied, amount to not greater than 50 % of a whole surface area of the blank.

13. The working method according to claim 12, wherein the material is caused to flow around the punch to form the cup-shaped body.

14. The working method according to claim 12, wherein the cup-shaped body makes a diode base.

15. The working method according to claim 12, wherein an end surface of the punch has a wave-shaped cross section.